

WHAT IS CLAIMED IS:

1. A method comprising the steps of:
 - heat treating aluminum alloy rivets to increase their shear strength;
 - sand blasting the rivets with aluminum oxide;
 - washing the rivets with a solution containing chromic acid and a fluorine compound;
 - applying a coating of a solution of a solvent, a resin binder, strontium chromate and an elasticizer to the rivet;
 - curing the coating at a temperature between about 230°F and 290°F for a time period of between about one half hour and one and one half hours to produce a gasket-like coating on the rivet having a thickness of about 0.0007 to about 0.001 inch; and
 - riveting two workpieces together with the coating sealing the rivet, and with the rivet retaining its full heat-treated shear strength.
2. A method as defined in claim 1 wherein the rivets are cured at a temperature of between 240°F and 260°F.
3. A method as defined in claim 1 wherein the solvent is Methyl Ethyl Ketone and Ethyl alcohol, the elasticizer is Polyvinyl Butyral, the resin is a phenolic resin, and the corrosion inhibitor is Strontium chromate.
4. A method comprising the steps of:
 - obtaining a supply of aluminum alloy rivets which have been heat treated to increase their shear strength;
 - sand blasting the rivets;
 - washing the rivets with a solution containing oxidation inhibiting material;
 - applying a coating of a solution of a solvent, a resin binder, strontium chromate and an elasticizer to the rivet; and

curing the coating at a temperature between about 230°F and 290°F for a time period of between about one half hour and one and one half hours to produce a gasket-like coating on the rivet having a thickness of about 0.0007 to about 0.002 inch;

whereby the rivets retain their full heat treated shear strength, and seal the rivet holes when the rivets are riveted in place.

5. A method as defined in claim 4 wherein the rivets are cured at a temperature of between 240°F and 260°F.

6. A method as defined in claim 1 wherein the solvent is Methyl Ethyl Ketone and Ethyl alcohol, the elasticizer is Polyvinyl Butyral, the resin is a phenolic resin, and the corrosion inhibitor is strontium chromate.

7. A coated rivet made in accordance with the method of claim 4 said rivet being a heat treated aluminum alloy rivet with a gasket-like coating having a thickness of between about 0.0007 and 0.002 inch thick.

8. A method comprising the steps of:

heat treating aluminum alloy rivets to increase their shear strength;

applying a coating of a solution of a solvent, a resin binder, a chromate compound and an elasticizer to the rivet;

curing the coating at a temperature between about 230°F and 290°F for a time period of between about one half hour and one and one half hours to produce a gasket-like coating on the rivet having a thickness of about 0.0007 to about 0.001 inch; and

riveting two workpieces together with the coating sealing the rivet, and with the rivet retaining its full heat-treated shear strength.

9. A method as defined in claim 8 wherein the rivets are cured at a temperature of between 240°F and 260°F.

10. A method as defined in claim 8 wherein the solvent is Methyl Ethyl Ketone and Ethyl alcohol, the elasticizer is Polyvinyl Butyral, the resin is a phenolic resin, and the corrosion inhibitor is Strontium chromate.

11. A method comprising the steps of:

obtaining a supply of aluminum alloy rivets which have been heat treated to increase their shear strength;

applying a coating of a solution of a solvent, a resin binder, a corrosion inhibitor, and an elasticizer to the rivet; and

curing the coating at a temperature between about 230°F and 290°F for a time period of between about one half hour and one and one half hours to produce a gasket-like coating on the rivet having a thickness of about 0.0007 to about 0.002 inch;

whereby the rivets retain their full heat treated shear strength, and seal the rivet holes when the rivets are riveted in place.

12. A method as defined in claim 11 wherein the rivets are cured at a temperature of between 240°F and 260°F.

13. A method as defined in claim 11 wherein the solvent is Methyl Ethyl Ketone and Ethyl alcohol, the elasticizer is Polyvinyl Butyral, the resin is a phenolic resin, and the corrosion inhibitor is strontium chromate.

14. A coated rivet made in accordance with the method of claim 11 said rivet being a heat treated aluminum alloy rivet with a gasket-like coating having a thickness of between about 0.0007 and 0.002 inch.

15. A method comprising the steps of:

obtaining a supply of aluminum alloy rivets which have been heat treated to increase their shear strength;

pre-treating the rivets to provide a clean surface free from oxidation or contamination;

applying a coating of a solution of a solvent, a resin binder, a corrosion inhibitor, and an elasticizer to the rivet; and

curing the coating at a temperature between about 230°F and 290°F for a time period of between about one half hour and one and one half hours to produce a gasket-like coating on the rivet having a thickness of about 0.0007 to about 0.002 inch;

whereby the rivets retain their full heat treated shear strength, and seal the rivet holes when the rivets are riveted in place.

16. A method as defined in claim 15 wherein the rivets are cured at a temperature of between 240°F and 260°F.

17. A coated rivet made in accordance with the method of claim 11 said rivet being a heat treated aluminum alloy rivet with a gasket-like coating having a thickness of between about 0.0007 and 0.002 inch.

18. A method as defined in claim 15 wherein the pre-treating involves sand blasting the rivets and washing the rivets in an acid solution.

19. A method as defined in claim 15 wherein said pre-treatment involves chromic acid anodizing of the rivets.